

BUILDING ENGINEERING REPORT

Building Name: Federal Building – 517 Gold Avenue SW

Building No.: NM0024ZZ

Location: Albuquerque, New Mexico

Number: 469.1 – Energy Conservation

DETAILED COST ESTIMATE

| ITEM DESCRIPTION | QUANTITY | UNIT | UNIT COST | TOTAL |
|---|----------|------|------------|-------------|
| Retrofit Existing Building Lighting (Exclusive of 6th Floor). | | | | |
| Retrofit Light Fixtures | 460 | EA | \$96.00 | \$44,160.00 |
| PCB Removal | 1 | LS | \$2,025.00 | \$2,025.00 |
| Subtotal | | | | \$44,256.00 |
| Mark-Up – 15% Contingency | | | | \$6,638.40 |
| Mark-Up – 18% Overhead and Profit | | | | \$9,160.99 |
| N.M. Gross Receipts Tax at 5.8125% | | | | \$3,490.72 |
| Total E. C. C. | | | | \$63,546.11 |
| Total E.C.C. (rounded) | | | | \$64,000.00 |

BUILDING ENGINEERING REPORT (BER)

Building Name: Federal Building - 517 Gold Avenue SW
Building No: NM0024ZZ
Location: Albuquerque, New Mexico

WORK ITEM: Action required within 5 years X Action required within 5-20 years

Number: 469.2 - Energy Conservation

Title: Replace Solar Film on Windows

Cost: FY 94: \$49,000

FY 98: \$67,000

DESCRIPTION:

The existing solar film is old and not performed to present standards. Remove and replace the existing solar film on the east, south, and west facing windows. The north windows are not exposed to strong summer months sun.

JUSTIFICATION:

The existing solar film deteriorates with age and needs replacement to reduce glare inside the building and to reduce solar heat gain. Energy conservation is enhanced if this work is completed.

ASSOCIATED WORK ITEMS:

None.

BUILDING ENGINEERING REPORT

Building Name: Federal Building - 517 Gold Avenue SW
Building No.: NM0024ZZ
Location: Albuquerque, New Mexico

Number: 469.2 - Energy Conservation

Title: Replace Solar Film on Windows



Exterior of Building

BUILDING ENGINEERING REPORT (BER)

Building Name: Federal Building – 517 Gold Avenue SW
Building No.: NM0024ZZ
Location: Albuquerque, New Mexico

Number: 469.2 – Energy Conservation

Title: Replace Solar Film on Windows

DETAILED COST ESTIMATE

| ITEM DESCRIPTION | QUANTITY | UNIT | UNIT COST | TOTAL COST |
|---|-----------------|------------|-----------|------------|
| Remove and Replace Solar Film on Exterior Window | 8600 (799.0) | SF (SM) | \$4 | \$34,400 |
| Subtotal | | | | \$34,400 |
| Mark-Up – 15% Contingency | | | | \$5,160 |
| Mark-Up – 18% Overhead and Profit | | | | \$6,192 |
| N.M. Gross Receipts Tax at 5.8125% | | | | \$2,659 |
| Total E.C.C. | | | | \$48,411 |
| Total E.C.C. (rounded) | | | | \$49,000 |

BUILDING ENGINEERING REPORT (BER)

Building Name: Federal Building - 517 Gold Avenue SW
Building No: NM0024ZZ
Location: Albuquerque, New Mexico

WORK ITEM: Action required within 5 years X Action required within 5-20 years ____

Number: 471.1 - Fire Sprinklers

Title: Complete Replacement of the Wet Pipe Fire Protection System
(Except Sixth Floor)

Cost: FY 94: \$608,000 FY 98: \$828,000

DESCRIPTION:

Remove the existing, fairly recently installed, Wet Pipe Fire Protection System in order to remove the existing plaster ceilings above the lay-in ceilings in the building. This work item will also be necessary if the work item for replacing any of the mechanical ductwork is taken. The existing piping is installed between the lay-in ceiling and the fixed plaster ceiling above. In order for the complete ductwork system to be removed, the existing plaster ceiling has to be removed, therefore, the Fire Protection System piping will have to be removed. This piping can be reinstalled, utilizing the existing pieces of main piping, couplings, etc. However, most of the piping, sprinkler heads, hangers, etc., will have to be removed in order to accomplish the work above. The sprinkler system will then be reinstalled to cover the extent of the building.

JUSTIFICATION:

The removal and reinstallation of the sprinkler piping is needed in order to accomplish other work items in the building.

ASSOCIATED WORK ITEMS:

Refer to Work Item 310.5 for Removal and Replacement of Existing Ceilings.
Refer to Work Item 315.2 for Upgrade Column Capitals to Design Live Load.
Refer to Work Items 515.1A and 515.1B for Replacement of Existing Ductwork.

Refer to Work Item 471.1B for Sixth Floor Fire Protection.

BUILDING ENGINEERING REPORT (BER)

Building Name: Federal Building – 517 Gold Avenue SW

Building No.: NM0024ZZ

Location: Albuquerque, New Mexico

Number: 471.1 – Fire Sprinklers

Title: Complete Replacement of the Wet Pipe Fire Protection System (Except 6th Floor Only)

DETAILED COST ESTIMATE

| ITEM DESCRIPTION | QUANTITY | UNIT | UNIT COST | TOTAL COST |
|------------------------------------|------------|------|-----------|------------|
| REMOVAL OF EXISTING | 1 | LOT | \$122,650 | \$122,650 |
| WET PIPE FIRE SPRINKLER SYSTEM | 245300 | SF | \$1.25 | \$306,625 |
| | (22,788.4) | (SM) | \$13.46 | |
| Subtotal | | | | \$429,275 |
| Mark-Up – 15% Contingency | | | | \$64,391 |
| Mark-Up – 18% Overhead and Profit | | | | \$88,860 |
| N.M. Gross Receipts Tax at 5.8125% | | | | \$24,952 |
| Total E.C.C. | | | | \$607,478 |
| Total E.C.C. (rounded) | | | | \$608,000 |

BUILDING ENGINEERING REPORT (BER)

Building Name: Federal Building - 517 Gold Avenue SW
Building No: NM0024ZZ
Location: Albuquerque, New Mexico

WORK ITEM: Action required within 5 years X Action required within 5-20 years

Number: 471.2 - Fire Sprinklers

Title: Complete Replacement of the Wet Pipe Fire Protection System
(Sixth Floor Only)

Cost: FY 94: \$75,000 FY 98: \$102,000

DESCRIPTION:

The recently installed Wet Pipe Fire Protection System on the sixth floor of the building will probably not have to be replaced as indicated under Work Item 471.1A. This is due to the fact that the piping is installed above the existing plaster ceilings in the sixth floor, and will therefore probably not require removal of the new Fire Protection System.

JUSTIFICATION:

This work item is justified because the existing plaster ceilings have to be removed. However, in the event that work is accomplished to replace all of the ductwork in the sixth floor, as well as other floors of the building, there may be a partial or complete removal of the Wet Pipe Sprinkler System that still needs to be accomplished.

ASSOCIATED WORK ITEMS:

Refer to Work Item 310.4 for Removal and Replacement of Ceilings.
Refer to Work Item 315.2 for Upgrade Column Capitals to Design Live Load.
Refer to Work Item 515.1A and 515.1B for Replacement of Existing Air Conditioning Ductwork.
Refer to Work Item 471.1A for Fire Protection Replacement for Entire Building.

BUILDING ENGINEERING REPORT (BER)

Building Name: Federal Building – 517 Gold Avenue SW
Building No.: NM0024ZZ
Location: Albuquerque, New Mexico

Number: 471.2 – Fire Sprinklers

Title: Complete Replacement of the Wet Pipe Fire Protection System (6th Floor Only)

DETAILED COST ESTIMATE

| ITEM DESCRIPTION | QUANTITY | UNIT | UNIT COST | TOTAL COST |
|---|-----------|------|-----------|------------------------------------|
| Removal of Existing | 1 | LOT | \$15,350 | \$15,350 |
| Wet Pipe Fire Sprinkler System (6th Floor Only) | 30700 | SF | \$1.25 | \$38,375 |
| | (2,852.0) | (SM) | \$13.46 | |
| | | | | \$53,725 |
| | | | | Mark-Up – 15% Contingency |
| | | | | \$8,059 |
| | | | | Mark-Up – 18% Overhead and Profit |
| | | | | \$9,671 |
| | | | | N.M. Gross Receipts Tax at 5.8125% |
| | | | | \$3,123 |
| | | | | Total E.C.C. |
| | | | | \$74,577 |
| | | | | Total E.C.C. (rounded) |
| | | | | \$75,000 |

BUILDING ENGINEERING REPORT (BER)

Building Name: Federal Building - 517 Gold Avenue SW
Building No: NM0024ZZ
Location: Albuquerque, New Mexico

WORK ITEM: Action required within 5 years X Action required within 5-20 years

Number: 479.1 - Miscellaneous Fire Protection

Title: Upgrade of Fire Protection System

Cost: FY 94: \$17,000 FY 98: \$23,000

DESCRIPTION:

The existing Fire Protection System water supply into the building is equipped with a double check valve for protection from backflow back into the water supply system.

This work item includes the installation of a new 6" reduced pressure backflow preventer on the inlet to the fire pump in the chiller room of the building. The current requirements of the Uniform Plumbing Code, 1991 Edition, Section 1003, Contamination of the Water Service into the Building requires that any backflow device installed in a building should be of the reduced pressure type for positive control of backflow and elimination of contamination of the water service into the building.

JUSTIFICATION:

This item is requested due to the change in the Uniform Plumbing Code requiring reduced pressure type devices for backflow prevention and positive control of contamination of the water supply to the building. Also, The City of Albuquerque is now requiring that all new buildings be installed with backflow prevention devices in lieu of double checks. It is currently not the policy of the City to require retroactive replacement of double checks with reduced pressure backflow preventers; however, there are certain instances that this has occurred.

ASSOCIATED WORK ITEMS:

There are no other items referenced by this Work Item.

BUILDING ENGINEERING REPORT (BER)

Building Name: Federal Building – 517 Gold Avenue SW

Building No.: NM0024ZZ

Location: Albuquerque, New Mexico

Number: 479.1 – Miscellaneous Fire Protection

Title: Upgrade of Fire Protection System

DETAILED COST ESTIMATE

| ITEM DESCRIPTION | QUANTITY | UNIT | UNIT COST | TOTAL COST |
|------------------------------------|----------|------|-----------|------------|
| Removal of Existing | 1 | LOT | \$3,400 | \$3,400 |
| 6" RBPB | 1 | EA | \$8,500 | \$8,500 |
| Subtotal | | | | \$11,900 |
| Mark-Up – 15% Contingency | | | | \$1,785 |
| Mark-Up – 18% Overhead and Profit | | | | \$2,142 |
| N.M. Gross Receipts Tax at 5.8125% | | | | \$692 |
| Total E.C.C. | | | | \$16,519 |
| Total E.C.C. (rounded) | | | | \$17,000 |